Assessment of Experiences with Third Party Approaches

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EXECUTIVE SUMMARY

In response to direction from the Connecticut Department of Public Utility Control (DPUC) in Docket 99-09-30, the Connecticut Light and Power Company (CL&P) has assessed the role of third parties (e.g., ESCOs) in its current energy efficiency programs as well as additional opportunities for third parties to participate in future programs.

In addition to working with consultants to the Energy Conservation Management Board, CL&P asked an independent consultant to develop a descriptive framework (i.e., typology) that summarizes alternative approaches to using third parties in ratepayer-funded energy efficiency programs. For each approach, experiences of energy efficiency program administrators (EEA) in other states are summarized, major policy objectives and goals that motivated regulators or EEAs to pursue that option are identified, and lessons learned (e.g., strengths and weaknesses) are summarized.

Existing program offerings of CL&P are then classified using this typology in order to characterize the current situation in Connecticut and the potential implications for Connecticut's energy efficiency programs are discussed.

Implications for Connecticut

Implication 1 regards the possibility of having third parties administer and actually deliver a portfolio of energy efficiency programs. This would be a significant change for Connecticut that would require a major decision and possibly legislation. The decision to and process involved in transferring administration, management and/or delivery of the entire portfolio of EE programs to a third party entity (e.g., state agency, non-profit corporation, private firm) is very complex and time consuming (~2-4 years) and typically requires enabling legislation. Thus far, experiences in other states have been mixed (e.g., highly regarded performance by NEEA in the Pacific Northwest; successful transition in Vermont, failure in California). The situation in Connecticut with only two utility EEAs is far different than Vermont or the Pacific Northwest where there were many utilities offering programs in local service territories. This suggests that the anticipated coordination benefits and administrative cost savings of moving from many local utilities to one statewide or regional EEA may not be a major consideration. In New York and Wisconsin, senior management at many of the utilities clearly signaled that they were no longer interested in administering energy efficiency programs after restructuring; this does not appear to be the case in Connecticut.

Implication 2 regards having either "broad based" or "targeted" solicitations for third parties to manage, deliver (and design) Energy Efficiency Programs. This would be using an approach which has been recommended in far different situations than the Connecticut environment. There are a number of recent examples from California and the Pacific Northwest in which EEAs have utilized either *broad-based* or *targeted solicitations* to solicit innovative program concepts from third parties to manage, design, and deliver energy efficiency programs. However, these solicitations were conducted in an environment that is far different than Connecticut's current situation.

Broad-based solicitations to manage, design, and deliver EE programs have been successful in other states in cases where there are substantial gaps in program offerings in major markets, where policymakers are dissatisfied with the performance of existing EEAs, or where policymakers conclude that an infusion of "new ideas" is needed in order to respond to significant changes in policy and program objectives. Broad-based solicitations to manage, design, and deliver EE programs may not yield significant benefits for CL&P given the comprehensiveness and breadth of the existing portfolio of programs.

"Targeted" solicitations to address gaps in program offerings have yielded some innovative new program concepts in other states and may be a preferable approach to consider in Connecticut. However the response to targeted solicitations by various private sector or public entities has not been overwhelming. For example, California utilities received only 2-3 bids in response to their statewide RFP for residential appliance and lighting program managers. SoCal Gas reports a relatively low response rate to many of their targeted RFPs. In the Wisconsin Focus on Energy pilot, the Department of Administration (DOA) typically received 3-5 responses to its RFPs for program managers in various market segments or functions; the same firms bid on many of the RFPs. Thus, Connecticut policymakers should not automatically assume that there will be significant interest and/or response by third parties to these solicitations.

Finally, based on the experiences in other states, there have been a number of successful examples of strategic partnership arrangements between an EEA and non-profit or public agencies or industry trade association to manage and deliver elements of energy efficiency programs (e.g. certification of contractors, education/training of energy professionals); this option should be explored in Connecticut where appropriate.

Implication 3 regards the situation where third parties develop, design and deliver projects either through a "broad based" or "targeted" DSM bidding program or a Standard Performance Contract . <u>The new RFP Program in Connecticut may already be in place to serve this purpose effectively.</u> Broad based DSM Bidding Programs were most successful during the mid-1990s in markets where utilities didn't offer other DSM programs or among utilities that promoted a "partnership" approach and cooperative relationship with winning ESCOs. Many less successful DSM bidding programs were part of "integrated, all-source" solicitations and featured complex bidding processes, lengthy contract negotiations over contract terms and conditions that were often not well-adapted to DSM market conditions, and high administrative costs.

There is a trend among utilities that are still doing DSM bidding towards more "targeted" solicitations, which are focused on market segments where ESCOs are active or where there are gaps in existing programs. There is not much evidence to suggest that DSM bidding is less expensive than other DSM programs targeted to large C/I markets (e.g., custom or standard rebate programs) – either in terms of total resource costs or administrative costs. However, well-designed DSM Bidding programs have been

effective in shifting performance risk from ratepayers to ESCOs and/or participating customers.

Standard Performance Contract (SPC) programs have been promoted by NAESCO as a way to overcome the limitations of DSM bidding programs, capture cost-effective energy savings, and promote the development of a vibrant ESCO industry during the transition to a more competitive electricity industry. Actual experiences with SPC programs highlight the strengths and weaknesses of this approach. In New Jersey, the PSE&G Standard Offer achieved significant resource savings (~230 MW), but financial incentives (and thus utility costs) were extremely high (~80-90% of project costs were paid through incentives). Second generation SPC programs (NY, CA) have been more successful in obtaining significant cost contributions from customers. In California, experience with the SPC program has been mixed: the program has produced cost-effective projects and ~40 ESCOs have participated statewide. However, the program has been significantly under-subscribed in large C/I markets at PG&E and SDG&E, slow to take off in small C/I markets, and regarded as a failure in residential markets. Moreover, the number of projects that failed to develop (~40%) was much higher than expected in 1998. In New York, after a very slow start, the SPC program, with a budget of ~$31M, is fully committed at the end of the second year. About 40 energy efficiency service providers are participating and have submitted a diverse mix of projects in various market sectors. Program Administrators (NYSERDA and CA utilities) have had to significantly increase their marketing & training in support of the program in order for it to take off.

An SPC-type program may not make much sense in Connecticut if there are many competing programs in the target markets. If the program budget is small (~$4-6 million), then the program is unlikely to entice new firms to relocate into the market. Moreover, CL&P's RFP pilot program has an innovative program design that incorporates many of the program design lessons gained from a decade of experience with DSM bidding programs. The program appears to be an effective way to increase the involvement of third party ESCOs and other types of energy efficiency providers in CL&P programs based on reported participation rates.

Implication 4 regards the situation where third parties provide program implementation services through competitive processes or partnership arrangements. *This option is widely used in Connecticut already.* Use of competitive processes to procure well-specified program implementation services is widely used by most EEAs in many other states and has been quite successful. CL&P already uses this option extensively in its existing programs and it appears to be an effective approach to utilizing third parties in energy efficiency programs.

Assessment of Experiences with Third Party Approaches
January 2001

1. Introduction

In Docket 99-09-30, Connecticut Light and Power (CL&P) was directed by the Connecticut Department of Public Utility Control (DPUC) to consider providing additional opportunities for third parties (e.g., ESCOs) to participate in the company's PY 2001 energy efficiency programs.[1] The Energy Conservation Management Board (ECMB), aided by its technical consultants, has also been considering various approaches involving increased roles for third parties in specific programs. This report was prepared by an independent consultant as input to that process.

The report provides a descriptive framework (i.e., typology) that examines alternative approaches to using third parties in ratepayer-funded energy efficiency programs. The analysis draws upon meta-evaluations of various types of DSM programs, impact and process evaluations of individual programs, and discussions with program managers in other states that are experimenting with these approaches.

The report is organized as follows. Functions and roles that must be performed in the administration, management, and delivery of energy efficiency programs are discussed first as background to describing appropriate roles for third parties. A typology of third party approaches is then developed in section 3. Section 4 highlights key features and examples of each approach, major policy objectives and goals that motivated regulators or energy efficiency administrators (EEA), and lessons learned (e.g., strengths and weaknesses). Summary quantitative indicators are presented in section 5: (1) magnitude of experience with this third party approach (e.g., number of utilities/programs, program expenditures), cost considerations (e.g., administrative costs, total resource costs, cost contributions from customers), and impacts (e.g., resource savings). These quantitative indicators primarily serve as background information and context. In section 6, existing program offerings of CL&P are classified using this typology in order to characterize the current situation in Connecticut. The potential implications for Connecticut's administration and operation of energy efficiency programs are then discussed. Appendix A provides a brief historical summary of the role of third parties in energy efficiency programs.

[1] Connecticut DPUC 2000. "The Department believes that developing the ESCO market is an appropriate goal… The Department believes that ESCOs and others should be allowed to bid to implement and operate C&LM programs… The Department will order the Company to work with ECMB to develop a RFP and criteria to evaluate the bids for approval at the time of its next annual C&LM filing. The group should consider whether the Company as well as licensed suppliers or their affiliates should be eligible to participate in this program."

2. Energy Efficiency Program Functions

In order to define appropriate roles for third parties, it is useful to describe the major functions involved in the administration, management, and delivery of a portfolio of energy efficiency programs: (1) General Administration, (2) Program Development, Planning and Budgeting, (3) Program Management and Design, and (4) Program Delivery/Implementation, and (5) Market Assessment and Evaluation (see Table 1). For each function, key activities that must be performed are listed as well as the likely roles for an EEA or third parties.

- There are a number of possible ways to divide responsibilities among various entities to administer, manage, & deliver energy efficiency programs.
- One of our objectives is to more clearly distinguish and define functions that are logically performed by an Energy Efficiency Administrator (EEA), whether it be a utility or some other entity, from activities where there is the possibility that either third parties or the EEA can assume responsibility.
- The EEA is that entity that is ultimately responsible and accountable for the proper use of public good funds for energy efficiency, either through a contract or regulatory management model. The regulatory model is still used in most states, especially when the utility remains as the EEA. It is generally more flexible than the arms-length relationships established in the contract model, particularly if there are disputes.[2] Examples of the contract model include: (1) a three year contract between the Vermont Public Service Board and Efficiency Vermont, (2) agreement between the Wisconsin Public Service Commission and the Wisconsin Public Service Corporation (a utility) and the Department of Administration to administer energy efficiency programs in the utility's service territory as part of a two year pilot, and (3) an inter-agency agreement between the NY Public Service Commission and NYSERDA to administer System Benefits Charge programs. NYSERDA has also signed agreements with five investor-owned utilities to administer SBC-funded programs through June 30, 2001.[3]
- For many functions and activities, there will be multiple entities involved with some division of assigned roles or responsibilities: primary, secondary, shared.
- There is some overlap among activities performed in various functional areas. Examples include (1) development of general program descriptions (and designs) as part of Program Development/Planning and development of detailed program designs that are included in Program Administration & Management, (2) initial screening of measures and programs for cost-effectiveness and assessments of program cost-effectiveness based on evaluation results.

[2] See Memo from ECMB Consultants on "Third Party Program Ideas for Program Delivery and Management", June 5, 2000 for more discussion on this issue.

[3] The NYSERDA/PSC agreement specifies an administrative dollar amount to NYSERDA, requires an Advisory Committee and their role, and reporting requirements. The PSC directed utilities to provide SBC fund to NYSERDA and five utilities signed agreements with NYSERDA and make quarterly payments.

Table 1: Roles and Functions in Energy Efficiency Programs.

Function	Description	Responsible Entity
I. General Administration & Coordination		EEA
Financial Management	Develop & maintain financial & accounting systems to review, approve, and track budgets, invoices, & all payments, subject to audits prepared by independent auditors on annual basis	
Contract Management	Administrative capability to solicit, hire and/or contract for staff and contractors to perform necessary services	
Reporting/Information Management Systems	Develop & maintain information management system necessary to produce required reports to regulators, internal utility mgmt, advisory committees	
Overall Budgeting	Develop, monitor & manage overall budget for C&LM program operations	
II. Facilitate Program Development, Planning & Budgeting		EEA (primary);
Market Assessment & Characterization	Collect & assess information on characteristics of markets to propose potential EE Program Initiatives (e.g., baseline conditions and expected changes in markets; key decision-making drivers, technical opportunities for EE)	
Program & Measure Screening	Initial screening of programs or measures to assess cost-effectiveness	
Facilitate Public Planning Process	Facilitate & lead development of public planning process for C&LM programs; obtain public input/comment on CL&M plan from major stakeholders; interact with DPUC and ECMB	
Develop Program Designs	Prepare general program description, designs & budgets for regulatory approval	
III. Program Administration, & Management	Administer, manage, and oversee program delivery/implementation	EEA or TP
Manage and oversee Program Delivery/ implementation	Solicit, select, hire and oversee Program Implementers	
Develop/Modify Program Designs	Prepare detailed program designs; propose program changes as appropriate based on market response	
Quality Assurance	Develop QA standards & tracking mechanisms to ensure effective program delivery/implementation	
Dispute Resolution Processes	Develop and oversee dispute resolution processes	
Oversee & Assess Program Implementation	Develop compensation mechanisms and oversee contracts for program implementation; Review and approve invoices	
IV. Program Delivery & Implementation		EEA or TP
Manage sub-contractors and implementers	Solicit, select, hire and oversee contractors that implement/deliver programs	
Program	Promote and market programs; mass advertising; information to	

Marketing/Outreach	market actors	
Information & education	Develop public and Consumer information strategy to promote customer participation & awareness of EE; information to market actors	
Project Development	Develop energy efficiency projects at specific customer sites	
Code training & support	Provide training to design professionals & public entities dealing with EE code requirements	
Financial Assistance/Incentives	Provide financial incentives to customers or other market actors	
Audits	Customer-specific energy information services	
Technical/Design Assistance	Market, product, or customer-specific technical & design assistance services	
Contractor certification	Develop certification approaches; Perform assessments necessary to establish whether specific parties are certified	
Collaborate with Regional/National MT Initiatives	Contact & meet with sponsors of regional/national MT initiatives; participate in joint planning exercises to develop specific MT programs; implement specific MT initiatives	
Measurement & Verification of Savings	Develop M&V procedures for programs; Collect, analyze and report program impacts ; Focus is on Verification to determine contractually-based payments to program implementers	
V. Market Assessment & Evaluation		EEA or TP
Market Assessment	Description or characterization of specific energy efficiency markets and how well markets are functioning with respect to policy goals	
Evaluation	Assessment of program impacts on structure and functioning of markets regarding EE products, services, or practices	
Process Evaluation	Review of program processes and administration for purpose of improving program effectiveness	
Cost-effectiveness Analysis	Analysis of benefits/costs of C&LM programs, based on results of evaluations	

Sources: Adapted from CPUC, "Request for Proposals for Selection of Energy Efficiency Program Administrators," August 1998; Vermont Public Service Board, "Request for Proposals for a Vermont Energy Efficiency Utility," October 1999.

Notes: Role – Energy Efficiency Administrator (EEA) or Third Party (TP)

3. Typology of Third Party Approaches

Table 2 presents a typology of possible approaches for using third party providers, listed in descending scopes of responsibility for third parties.[4] The typology encompasses the full spectrum of roles, ranging from situations in which a third party replaces an existing utility administrator and assumes all functions and responsibilities to options in which third parties bid to implement specified functions in existing, relatively mature programs.

The columns in Table 2 include the following information:

- **Third Party Approach** - list of major functions and responsibilities to be performed by third parties (e.g., administration, management, design, delivery/implementation);
- **Contracting Mechanisms & Procurement Options** - contracting mechanisms and alternative procurement options used to select and work with third party providers;
- **Description** - additional descriptive information including roles and responsibilities of the EEA, areas in which an EEA and third parties share responsibility, and examples drawn from other states.

This list of options describes major approaches that have been utilized in other states. However, the list is not comprehensive because other combinations of third party roles and contracting mechanisms/procurement options are possible. Key distinguishing features of each option are highlighted below:

- In options 1 and 2, third parties have essentially replaced utilities as the Energy Efficiency Administrator (EEA). The key features that distinguish Option 1 vs. 2 are the (1) functions directly performed by the EEA, and (2) method used to select the EEA. In option 1, the EEA limits its role to administration, management, oversight, and evaluation of energy efficiency programs or MT initiatives. In this approach, the EEA tends to contract out delivery of specific programs or initiatives to other third parties. In contrast, in option 2, the EEA, as illustrated by the Vermont EEU, is responsible for administration, management, *and delivery* of programs. Thus far, under option 1, EEA have been selected through a regulatory process, state legislation, or voluntary agreements of stakeholders, while in option 2, EEA have been selected through a competitive bidding process.[5]

- In Option 3a & 3b, the EEA contracts with third party providers for a broad set of functions – management, design, and delivery of energy efficiency programs. The key features that distinguish Option 3a vs. 3b are the procurement approach (i.e., broad-based solicitation of program concepts open to third parties vs. targeted solicitation).

[4] We have attempted to build off descriptive approaches and terminology used by the ECMB's consultants.
[5] Given the comprehensive scope of responsibilities assigned to EEAs under Option 2, it is not surprising that other states have decided to select EEAs using competitive bidding processes rather than through a sole source designation.

- In Option 4a & 4b, third parties manage and deliver energy efficiency programs. The key difference between these options is the type of procurement approach: competitive solicitation vs. "partnership" arrangement.

- In Option 5, third parties either develop or facilitate/coordinate the development of program designs for MT initiatives based on a strategic partnership arrangement with one or more EEA. This approach describes many of the current activities undertaken by Northeast Energy Efficiency Partnerships (NEEP).

- Options 6a, 6b and 6c describe roles played by third party providers in "broad-based", "targeted" DSM bidding and Standard Performance contract programs respectively. In a DSM bidding program, the EEA is responsible for administration, management, and overall program design. Third parties, typically ESCOs or contractors, offer to develop projects at customer facilities that deliver savings from installation of high-efficiency equipment. The TP negotiates and sign long-term contracts with the EEA and receives payments for verified savings on a pay-for-performance basis. In these programs, third parties assume primary responsibility for marketing, lead generation, and project development.

- In Options 7a & 7b, third parties provide various types of program implementation services and are selected through competitive processes (option 7a) or partnership-type arrangements (option 7b). In these options, the EEA is responsible for program administration, management, and design. Table 2 gives examples of the types of implementation services that are typically provided through competitive procurement processes vs. services where it may be preferable to develop strategic partnership relationships with a TP provider.

- In Option 8a and 8b, third parties provide various types of program evaluation services and are selected through competitive processes or partnership arrangement or regulatory/legislative process (option 8b). For example, in Vermont, the Department of Public Service was assigned responsibility for program planning and evaluation as part of the Stipulation of Settlement among parties that was ultimately codified in Legislation.

Table 2: Possible Approaches and Roles for Third Party Providers.

Approach: Role of Third Party (TP)	Contracting Mechanisms & Procurement Approaches	Description/Examples
#1 – TP Administers & Manages Portfolio of EE Programs	- Third party EEA selected through regulatory process, voluntary agreements among stakeholders, state legislation, or competitive bidding process. - Contract between TP EEA & PUC or utility - EEA uses both "broad-based" and targeted solicitations, as well as "partnership" arrangements to deliver/implement EE programs	- Energy efficiency administrator (EEA) administers, manages & oversees portfolio of programs; contracts out program delivery & implementation to other entities - Utilities collect public purpose funds approved by PUC; utilities may have program implementation role or be on Board of Directors if a non-profit EEA is created by stakeholders - Examples: Northwest Energy Efficiency Alliance, NYSERDA, Wisconsin DOA, CA PUC RFP for Independent Administrator
#2 – TP Administers, Manages & Delivers Portfolio of EE Programs	- Third party EEA selected through competitive bidding process, state legislation, or regulatory process - Contract between TP EEA & PUC	- Third party (TP) EEA responsible for general program administration, program management, program planning, program design, and delivery - Examples: Efficiency Vermont, CA PUC RFP for Independent Administrator
#3a – TP selected through "*broad-based*" competitive solicitation to Manage, Design & Deliver EE Program	- "Broad-based" competitive solicitation process used to select TP providers; solicitation describes program objectives, overall budget for TP Initiative, eligible markets, evaluation criteria - Contract between EEA and TP providers	- EEA develops RFP; evaluates bids from TP providers; selects winning bidders; negotiates contracts - TP Provider performs market assessment in their Bid proposal, and has primary responsibility for design & execution of their proposed program concept - Examples: California utilities 1998 TPI program, SCE PY2000 TPI Initiative, CA PY2000 Summer Reliability Initiative for Cross-cutting Demand Reduction projects
#3b – TP selected through "*targeted*" competitive solicitation to Manage, Design & Deliver EE Program	- EEA issues competitive solicitation that is "targeted" to specific program areas, markets, or a program element; *Targeted* RFP describes target market, program budget, & scope of services for TP Program Manager - Contract between EEA and TP providers	- EEA develops RFP; evaluates bids from TP providers; selects winning bidders; negotiates contracts; EEA may administer & offer other related programs in same market - TP proposes program design or provides input, responsible for program management and delivery - Examples: 3 SDG&E "targeted" RFP, 4 Southern California Gas "targeted' RFPs at local government, residential new construction, , residential renovation services
#4a – TP selected through competitive solicitation to Manage & Deliver EE Program	- *Competitive procurement process to select TP* - Contract between EEA and TP provider	- EEA selects TP contractor to manage & deliver an EE program or program element ; EEA retains primary responsibility for program design (TP contractor may provide input) - TP primary responsibility is effective program management and delivery - Example: California Statewide Lighting and Appliance Program
#4b – TP selected through partnership arrangement to Manage & Deliver EE Program or Program element	- *Partnership arrangement between EEA & TP*	- EEA develops relationship with third party "partner" that manages element of an EE program (e.g., training, certification) - EEA responsible for market assessment and program design (either sole or primary role) - TP Manager responsible for program management & delivery: contracts with implementers

Table 2: Possible Approaches and Roles for Third Party Providers (cont.)

Approach: Role of Third Party	Administrative & Contracting Mechanisms & Procurement Approaches	Description
#5 – TP provide Program Design – Coordination & Facilitation Services	- *Strategic partnership arrangement* between one or more EEA and TP Program Design/Facilitation organization - EEA contracts with TP Program Design/Facilitation organization	- TP program designer facilitates regional or statewide working groups to develop EE program initiatives - Utilities and other parties are on Board of Directors of non-profit TP organization - Examples: Northeast Energy Efficiency Partnerships (NEEP)
#6a – TP selected through Broad-based Solicitation to Develop, Design, & Deliver EE Projects	- *Broad-based, open competitive solicitation for energy/demand savings (i.e., integrated supply and DSM bidding or DSM bidding)* - Contract between EEA and TP project sponsor (i.e., ESCO or customer) that provides payments for verified energy savings at bid price (i.e., pay-for-performance basis)	- Utility or EEA develops & issues "All-Source" or DSM Bid RFP; evaluate bids, select winning bidders; negotiate and oversee contracts; make payments for verified savings - TP contractor offers quantity of savings at bid price; TP provides market assessment as part of their bid response - Examples: Central Maine Power Partners Program, Consolidated Edison Integrated Bidding RFP, Niagara Mohawk all-source Bidding RFP, PG&E RFP for Demand-side and Supply-side Resources
#6b – TP selected through "targeted" DSM bidding solicitation to Develop, Design, Deliver, and Deliver Projects	- *Targeted solicitation – for energy/demand savings* - Contract between EEA and TP project sponsor (i.e., ESCO or customer) which provides payments for verified energy savings at bid price (i.e., pay-for-performance basis)	- EEA develops & issues DSM Bid RFP targeted to specific market sectors, designed to complement or augment existing programs; EEA evaluate bids, select winning bidders; negotiate and oversee contracts - TP offers quantity of savings at bid price; TP provides market assessment as part of their bid response - Examples: SCE Demand-side RFP for Large CI and Small Office Buildings, Wisconsin Electric Residential and Small Commercial RFP, Public Service Colorado RFP
#6c – TP participate in Standard Performance Contract (SPC) Program to Develop, Design, and Deliver EE Projects on a Pay-for-Performance Basis	- EEA develops *Standard performance contract,* which must be signed by project sponsors that want to participate	- EEA offers pre-specified incentive payments for delivered savings; Program features standardized program rules, M&V guidelines, and standard contract - TP (e.g., ESCO or customer) applies for incentive payments for project under development on first-come, first-served basis; paid over contract term for delivered savings - Examples: CA SPC Program, NY SPC Program, PSE&G Standard Offer, Wisconsin Energy Efficiency Performance Program
#7a – TP selected through Competitive solicitation process for Program Implementation Services	- *competitive procurement process* used by EEA - Contract between EEA and TP	- TP provides program implementation services specified by EEA (e.g., technical audits, design assistance, training, equipment installation) - EEA administers, manages, oversees & designs program - Examples: widely used by EEA
#7b – TP selected through Partnership Arrangement for	- *partnership arrangement* - Contract between EEA and TP	- TP provides program implementation services specified by EEA (e.g., training, certification of contractors, bulk procurement)

Program Implementation Services		- EEA administer, manages, oversees, & designs program - Examples: widely used by many EEA
#8a – TP provides Program Evaluation Services through Competitive solicitation	- *competitive procurement process* used by EEA; contracts between EEA and TP Evaluator	- EEA contracts with TP Evaluators for impact, process, and market evaluations
#8b – TP provides Program Evaluation Services through Partnership Arrangement	- assigned to independent, third party (e.g., state agency)	- Most evaluation services provided by state agency or third party; partnership arrangement

4. Assessment of Experiences of Energy Efficiency Administrators (EEA) in Other States

This section summarizes experiences of EEA in other states that have experimented with various types of approaches for utilizing third parties. Discussion of each option is organized around a summary table that describes experiences of other EEA, key objectives that motivated policymakers in that state to pursue that option, and strengths and weaknesses. Wherever possible, strengths and weaknesses of a particular approach is discussed with explicit reference to a base case, "business-as-usual" alternative.

Option 1 - Third Parties Administer & Manage Portfolio of Energy Efficiency Programs

In this option, a third party, Energy Efficiency Administrator (EEA) administers, manages, and oversees a portfolio of programs, including evaluation. The EEA typically contracts out program delivery and implementation to other entities (e.g., private sector firms, non-profit organizations, government agencies, or utilities. Examples of this approach include: the Northwest Energy Efficiency Alliance (NEEA), New York State Energy Research & Development Authority's (NYSERDA) Energy Smart Program, the Wisconsin Department of Administration's Focus on Energy pilot, and the California Public Utilities Commission RFP to select three Statewide Program Administrators. In some cases, if the EEA has limited internal staff resources, it may contract out for program management services (e.g., Wisconsin Department of Administration). In these examples, with the exception of California, the EEA was selected through an administrative regulatory process (e.g., New York PSC order), voluntary agreements among stakeholders (e.g., Pacific Northwest), or state legislation (WI).

Table 3: Summary of Option 1.

Examples	• Northwest Energy Efficiency Alliance (NEEA) • CA PUC RFP for Independent Administrator • NYSERDA • Wisconsin Department of Administration's Focus on Energy pilot & Statewide program
"Business as Usual" Alternative	• Continue Utility Administration
Policy Goals & Objectives	• Better align EE Program Administration with EE market boundaries and overcome service territory limitations • Improve Administrative efficiency and coordination (NYSERDA, NEEA) • Minimize perceived institutional conflicts with continued utility administration in competitive electricity industry (CA, NY)
Strengths	• Organizational structure of experienced, non-profit corporation as Program Administrator is well suited to achieve regional market transformation program objectives (NEEA) • Effective governance structure created in Pacific Northwest and NY (e.g.,

	NEEA Board of Directors, NYSERDA reports to NYPSC and utilizes Program Advisory Committee) • Geographic scope of Program Administrator (e.g., statewide, regional) is better aligned with operation of energy efficiency services markets • Potential to minimize role of Program Administrator in implementing energy efficiency programs; may be linked to "privatization" goals
Weaknesses	• Lengthy transition period required to select new energy efficiency administrator (EEA) and/or for EEA to fully assume program management responsibilities (CA, WI) • Uncertainties and difficulties involved in transition to third party EEA can adversely affect existing energy efficiency services provider infrastructure (CA) • Significant up-front costs involved in establishing new non-profit organization to serve as Program Administrator • Shift to a contract model can result in less flexibility for regulatory agencies to influence EEA compared to utility administration (CA) • Difficult to distinguish and decide among entities that should perform program delivery and implementation functions (e.g., EEA vs. other third party implementers); yet functions must be specified in scope of services of Program Administrator as part of shift to a contract model (CA)
Summary of Experience to Date	• Independent management audit gives high marks to NEEA performance during first three years • CPUC failed in its effort to select three statewide Program Administrators through a competitive procurement process; lack of political will, inability to develop "contract model" within agency that had traditionally relied on a "regulatory management" system • Wisconsin Department of Administration (DOA) has administered a 3 year, ~$16.5 million pilot program in Wisconsin Public Service Corporation service territory ("Focus on Energy"); DOA hired six Program Managers through competitive solicitations to manage program areas • Wisconsin DOA is currently involved in lengthy transition process to take over EEA responsibilities on a statewide basis from other utilities as mandated by state legislation • Wisconsin DOA RFP established caps on program budget that could be billed by each Program Managers to address concern that firms would have incentive to retain program dollars internally rather than contract out for program implementation services • NYSERDA, an existing state agency, has administered and managed a statewide public benefits energy efficiency fund for three years

Option 2 - Third Parties Administer, Manage, and Deliver Portfolio of Energy Efficiency Programs

In this option, a third party, Energy Efficiency Administrator (EEA) is responsible for administration, management, and delivery of a portfolio of programs. The EEA will retain staff to perform these functions and will have substantial discretion to contract out program implementation functions to other third parties. Examples of this approach include: Efficiency Vermont (EV), a statewide EEA, and the CPUC's RFP to

select three Statewide Program Administrators.[6] In these two examples, the intent was to select the third party EEA using a competitive solicitation process.

Table 4: Summary of Option 2.

Examples	• Efficiency Vermont (EV); • CA RFP for Independent Administrators
"Business as Usual" Alternative	• Continue Utility Administration
Policy Goals & Objectives	• Improve Administrative efficiency and coordination because of fragmented, small service territories (VT) • Minimize perceived institutional conflicts with continued utility administration in competitive electricity industry (CA) • Better align EE Program Administration with EE market boundaries and overcome service territory limitations (CA, VT)
Strengths	• Concept of Energy Efficiency Utility (EEU) is attractive & can potentially create organization whose primary business activity is completely focused on managing and delivering energy efficiency program services
Weaknesses	• Potential for significant disruptions in energy efficiency program services during transition period • Move to a contract model can result in less flexibility for regulatory agencies to influence Program Administrators
Summary of Experience to Date	• Vermont successfully passed legislation creating EEU; PSB developed competitive procurement process, successfully selected a Program Administrator, negotiated a three-year contract with EV, and established a day-to-day oversight structure (i.e., Contract and Fiscal Administrator) • Efficiency Vermont has successfully assumed new program responsibilities; premature to judge their performance in delivering programs • CPUC was unsuccessful in its effort to establish "independent administration" of EE programs • Because of "contract model", CPUC devoted significant resources to defining activities to be performed by Program Administrators and Program Implementers; desire to create "bright line" between functions performed by administrators and implementers could have led to sub-optimal program delivery systems (CA)

Option 3a - Third Parties Selected to Manage, Design and Deliver Energy Efficiency Programs through broad-based competitive solicitations

In this option, the Energy Efficiency Administrator (EEA) issues a broad-based, "open" solicitation and then contracts with third parties to provide a broad set of functions – management, design, and delivery – for a specified program or initiative.[7] Third parties have primary responsibility for design and execution of their proposed program concept. Private sector firms selected through this process will typically build in a profit margin as part of their billed labor rate and/or through a performance incentive

[6] The CPUC RFP is included in both Option #1 and #2 because the RFP indicated that the Program Administrator was mainly expected to administer and manage programs, but would be allowed to *deliver* programs in certain markets with regulatory approval.

[7] In this context, an "open" solicitation is one in which the EEA places relatively few limits on eligible markets, program areas, or preferred delivery mechanisms.

for achievement of specified goals. Examples include: (1) the 1998 Third Party Initiative (TPI) solicitations conducted by the four California investor-owned utilities, (2) Southern California Edison's PY2000 Third Party Initiative, and (3) the PY2000 Summer Reliability Cross-Cutting Demand Reduction Solicitations issued by the three California electric investor-owned utilities. In the 1998 CA TPI program, 78 proposals were submitted statewide (although bidders submitted similar proposals to more than one utility). Four utilities funded 32 projects, although only 21 were unique (i.e., six projects were offered by more than one utility). In the first two examples from California, the utility EEAs had an opportunity to earn shareholder incentives for "superior" performance in administering these third party initiatives.

Table 5: Summary of Option 3a.

Examples	• California utilities' 1998 Third Party Initiatives (TPI) programs ($8.5 M) • Southern California Edison (SCE) PY2000 TPI Initiative ($2.1 M)[8] • California electric utilities PY2000 Summer Reliability Initiative RFP for Cross-Cutting Demand Reduction Projects ($6.8 M budget statewide)
"Business as Usual" Alternative	• Offer programs designed and delivered by existing utility EEA
Policy Goals & Objectives	• Solicit innovative program concepts from third parties, particularly in situations where there have been significant changes in overall policy objectives • Tool that can be used to achieve "outsourcing" objective
Strengths	• Enlarges pool of program design and implementation skills beyond that of utility EEA • Provides "training ground" to test newer or riskier pilot program concepts
Weaknesses	• Difficulty in developing formal mechanism for integrating successful TPI projects into existing mainstream programs • Lengthy contract negotiations with bidders in some cases • "Broad-based" open solicitation tends to attract some projects/proposals that substantially overlap existing programs and thus incremental savings may not be achieved
Summary of Experience to Date	• This option requires an experienced EEA to develop solicitation, review and select proposals, and negotiate, sign and administer contracts with third parties • Depending on time constraints and procurement rules, a two-stage solicitation approach may be preferable: phase 1 – concept proposal, and phase 2, development of program concepts into detailed program design, often working interactively with EEA. In essence, this is approach that NEEA has used successfully in the Pacific Northwest in its broad-based solicitation. • 1998 CA Third Party Initiatives (TPI) program: An independent evaluation of the program concluded that: (1) overall, the TPI program had potential to enhance California's market transformation efforts, (2) that some of the successful 1998 TPI projects had been rolled into the 1999 Utility programs, (3)

[8] The eight projects selected by SCE include: (1) Time of Sale Home Inspection Audit Program, (2) Factoring Energy Efficiency into Home Appraisals, (3) the Living Wise Project, (4) Green Schools program, (5) Software tool for Process Applications in small and medium-sized industrial facilities, (6) Transforming residential Energy Efficiency Markets through Local Governments and Communities, (7) Training HVAC Design Engineers on Commissioning of Commercial Buildings, and (8) Web- and Computer-based Energy Efficiency and Cost Estimating Tools for the Non-Residential Buildings Sector Decision-maker.

	that the program could be significantly refined and improved by providing market characterization results to potential program designers, implementers and administrators, by enhancing the RFP and selection processes, and by developing a formal mechanism for integrating successful TPI projects into mainstream programs, and (4) that evaluation of market effects (i.e., program evaluation) should be not responsibility of program implementers as in the 1998 CA TPI program[9] • The Independent evaluation of the 1998 CA TPI program also provided an initial assessment of 13 individual TPI projects/programs using the "Gap/Overlap Analysis Method" which assessed key accomplishment of each project and their potential to contribute to development of a self-sustaining energy efficient market • SCE received 34 bids in response to its PY2000 Third Party Initiative RFP and has selected and signed contracts with eight third party firms for $2.1 Million. SCE was pleased with the overall response to the RFP (and allowed sufficient time for bidders to respond) and selected the best proposals in each of three major program areas: new construction, residential, and non-residential. The RFP asked for innovative program concepts that could help transform energy services markets. Among the eight winning projects, two projects involve development of software or web-based tools, four involve training or education of various market actors or customers, and two involve development of turnkey program elements that complement existing programs. SCE noted that it takes significant utility management time to oversee third party initiative projects. • Based on the independent evaluation and discussions with stakeholders, the California Board for Energy Efficiency (CBEE) concluded that, in 1999 & 2000, "targeted" Third Party solicitations designed to obtain innovative program concepts in markets where there were program gaps or where existing programs were not achieving goals were a preferred approach. • The CPUC recently ordered the three electric utilities to conduct competitive solicitations for cross-cutting demand reduction projects as part of the CPUC's Summer Reliability Initiative and set aside ~6.8 M statewide for the effort. The utilities issued their RFPs in Sept. 2000 and are in process of evaluating proposals. The entire effort is on an extremely fast track and is operating under extraordinary time pressures as the CPUC wants projects to be on line prior to June 2001 in order to alleviate the peak demand problems facing California.

Option 3b - Third Parties Selected to Manage, Design and Deliver Energy Efficiency Programs through targeted competitive solicitations

In this option, the Energy Efficiency Administrator (EEA) issues a competitive solicitation that is "targeted" to specific program areas, markets or a program element. The EEA then contracts with third parties to provide specified functions – program management, design, and delivery – for a specified program or initiative. Examples include: (1) various "targeted" RFP issued by Southern California Gas Company (SoCal Gas) during 1999 and 2000 with budget of ~$3.5 M per year, (2) various "targeted" RFP issued by San Diego Gas & Electric Company (SDG&E) during 1999 and 2000.

[9] Quantum Consulting 1999.

Table 6: Summary of Option 3b.

Examples	• SoCal Gas Upstream Water Heater RFP (900k/yr)[10] • SoCal Gas Time of Sale Home Inspection RFP (500k/yr) • Socal Gas Residential Renovation Services RFP (400k/yr)[11] • SoCal Gas Local Government Commission RFP (500k/yr) • SDG&E Local Government Commission RFP (300-400k) • SDG&E Residential New Construction RFP (300-400k) • SDG&E Residential Renovation & Remodeling (~300k)
"Business as Usual" Alternative	• Offer programs designed and delivered by utility EEA
Policy Goals & Objectives	• Solicit innovative program concepts from third parties • Tool that can be used to achieve "outsourcing" objective
Strengths	• Enlarges pool of program management, design and implementation skills beyond that of utility EEA • Test new or riskier pilot program concepts in markets where there are identified program gaps or where existing programs are not achieving objectives • Test new program elements (e.g., training in emerging technologies) that complement existing programs
Weaknesses	• Scope of program design responsibilities exercised by Third Party contractor are often an issue
Summary of Experience to Date	• SoCal Gas has issued 6-7 "targeted" TPI Initiatives in 1999 and 2000. Overall, market response has been poorer than expected (e.g., 1-2 bids on most RFP; 5 bids on Local Government RFP). SoCal Gas believes that there are too many $$ out there for what the market can presently handle. Bidders tend to be consultants, who can respond to RFP; other types of energy efficiency providers are not used to dealing with competitive solicitations or the tight time deadlines. Results have been mixed: SoCal Gas plans to incorporate two of the funded projects in their portfolio of program for PY2001 and is planning to stop funding for 3-4 of the other initiatives in order to fund activities that now have higher priority with the CPUC. • Iν 1999, SDG&E issued 3 "targeted" RFP. Overall, market response was fair to good. Overall, SDG& has been pleased with results from their pilots, some of which have been folded into existing program offerings. SDG&E believes that it is critical that third party contracts build in accountability for results, rather than being viewed as a "grant." • Depending on time constraints and procurement rules, a two-stage solicitation approach may be preferable: phase 1 – concept proposal, and phase 2, development of program concepts into detailed program design, often working interactively with EEA. In essence, this is approach that NEEA has used successfully in the Pacific Northwest in targeted solicitations.

Option 4a - Third Parties Selected through competitive procurement process to Manage and Deliver Energy Efficiency Programs

[10] In this program, SoCal Gas was looking for third parties to work with upstream manufacturers and suppliers to increase market penetration of high-efficiency gas water heaters.

[11] In this RFP, SoCal Gas was looking for third party to work with home remodeling and supply chains to complement Residential Contractor Program.

In this option, the EEA selects third party contractors through a competitive solicitation process to manage and deliver an energy efficiency program or an element of a program. In contrast to Option 3a or 3b, in option 4a, the program design has been well-specified by the EEA and the third party's primary responsibility is effective program management and delivery. Examples of this option include: the California Statewide Lighting and Appliance program. In this program, the EEA retains primary responsibility for program design, although the Third Party contractor provides some input on program design.

Table 7: Summary of Option 4a.

Examples	• California Statewide Lighting and Appliance Program (~$15-20M/year)
"Business as Usual" Alternative	• Offer programs designed and delivered by utility EEA
Policy Goals & Objectives	• Solicit flexible and innovative program management and coordination skills and program delivery expertise from third parties • Tool that can be used to achieve "outsourcing" objective
Strengths	• Enlarges pool of program management and delivery skills beyond utility EEA • Can potentially produce cost savings in program administration due to expanded market coverage (e.g., statewide) and more centralized interactions with upstream market entities (e.g., manufacturers, retailers, distributors (CA Lighting & Appliance program)
Weaknesses	• EEA are still ultimately responsible for prudent use of ratepayer funds; utility EEA thus feel obligated to establish contract management & oversight structure for Third Party program manager and sharply limit scope of program design efforts of contractor (CA Lighting & Appliance Program)
Summary of Experience to Date	• California Statewide Lighting and Appliance Program: (1) response to RFP was disappointing – only 2-3 bids, (2) Utility EEA established management Steering Committee to oversee Third Party program manager, (3) TP manager which represents a team of consultants & providers, has been successful in fast-tracking certain program activities that often get sidetracked and slowed down because of utility organizational culture or legal constraints (e.g., use of Energy Star logo/brand, statewide marketing campaign), (4) TP administrator and utility oversight management structure have helped CA utilities to reach consensus on program designs and speak with "one voice" in national market transformation organizations (e.g., CEE)

Option 4b - Third Parties Selected through Partnership Arrangement to Manage and Deliver Energy Efficiency Programs

In this option, the EEA develops a relationship with a third party "partner" to manage and deliver an element of an energy efficiency program whose design has been well-specified by the EEA. Examples include: (1) NEEA's relationship with the Northwest Energy Education Institute, (2) SCE and SDG&E's partnership with the League of California Homeowners in the California Residential Contractor Program, (3) PG&E's relationship with Electric Gas Industries Association, (4) SCE's partnership

with Cal Poly Pomona, and (5) NYSERDA's relationship with the Lighting Research Center.

Table 8: Summary of Option 4b.

Examples	• Northwest Energy Education Institute • League of California Homeowners • Electric Gas Industries Association • Cal Poly Pomona Lighting Curriculum (400K) • Lighting Research Center
"Business as Usual" Alternative	• Offer education, training, and certification programs managed and delivered by EEA staff
Policy Goals & Objectives	• Create strategic alliances with organizations that are well-suited to manage & deliver elements of energy efficiency programs
Strengths	• Partnering arrangement allows EEA to form strategic alliance with organization that is uniquely suited to manage and deliver program or program element
Weaknesses	• Sole source, partnering arrangement may cause other parties to complain about EEA procurement practices
Summary of Experience to Date	• SDG&E and SCE partners with the League of California Homeowners and PG&E partners with EGIA, who provide a key program element in the statewide Residential Contractor program: screening and certifying contractors for eligibility to participate in the program. • NEEA partners with the Northwest Energy Education Institute, who manages & delivers an Education/Information/Training program element; they provide customized training for energy professionals, offer energy efficiency certification programs, and develop EE curricula in colleges • SCE is partnering with Cal State Pomona who is developing a lighting curriculum for training future energy professionals and auditors (based on an unsolicited proposal).

Option 5 - Third Party Selected to Provide Program Design Facilitation and Coordination Services

In this option, a third party organization either develops or facilitates/coordinates the development of program designs for market transformation initiatives based on a strategic partnership with one or more EEAs. Examples include the Northeast Energy Efficiency Partnership (NEEP), which is a non-profit organization; EEAs in New England are on the Board of Directors.

Table 9: Summary of Option 5

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Examples	• Northeast Energy Efficiency Partnership Initiatives (NEEP)
"Business as Usual" Alternative	• Offer programs designed by utility or Third Party EEA
Policy Goals & Objectives	• Solicit innovative program concepts from third parties • Tool that can be used to achieve "outsourcing" objective
Strengths	• Helps facilitate innovative and coordinated program designs in New England and Mid-Atlantic regions in key end use markets in order to assist market transformation efforts
Weaknesses	• As a non-profit without long-term institutional support, NEEP has to devote significant resources to on-going, annual fund-raising which may be better utilized towards accomplishing primary organizational mission
Summary of Experience to Date	• NEEP initiatives have improved regional coordination and accelerated the spread of innovative, market transformation programs offered by EEA in New England and Mid-Atlantic regions in the following markets: commercial lighting design, residential lighting fixtures, clothes washers and appliances, premium motors, and residential and commercial air conditioning (HVAC) equipment and practices.

Option 6a - Third Parties Selected through a "Broad-based" Solicitation to Design, Develop, and Deliver EE Projects (DSM Bidding)

In this option, third parties, typically ESCOs or contractors, offer to provide verified energy reductions at a specified price by developing energy efficiency projects at customer facilities in response to a broad-based, open solicitation issued by the EEA.[12] During its heyday in the early 1990s, this option was popularly know as either "all-source or integrated bidding" if both supply and demand resources were eligible or "DSM bidding" if limited only to ESCOs or customers. ESCOs submit bid proposals that typically include a pay-for-performance element, qualifications & capabilities statement, and a marketing plan that describes strategies that will be utilized to develop projects in their identified target market or signed letters of commitment from customers. ESCOs that are selected by the EEA then negotiate and sign a long-term contract and receive payments for verified savings over the term of the contract. ESCOs assume primary responsibility for marketing, lead generation, and project development. Examples include: Central Maine Power (CMP), Puget Sound Power & Light Company (Puget), New York State Electric & Gas (NYSEG), Niagara Mohawk, Consolidated Edison, Public Service of Colorado (PSCo), Pacific Gas & Electric (PG&E), Texas Utilities, Houston Lighting & Power (HL&P).

[12] In the context of this option, a "broad-based" solicitation means that the utility EEA is either soliciting both supply and demand resources (an "integrated" DSM and supply-side RFP), or indicates that ESCOs may offer proposals for energy/demand savings in all market sectors (e.g., small and large C/I, residential) with few limitations on eligible measures.

Table 10: Summary of Option 6a.

Examples	• Central Maine Power - 1989 Power Partners Program • Puget -1991RFP: Long-term Purchase of Resources from Conservation and Generation Facilities • NYSEG – 1990 RFP: 100 MW of Dispatchable Peaking Supply and 30 MW of DSM • Niagara Mohawk – 1991 All-Source Bidding RFP • Consolidated Edison – 1991 Integrated Bidding RFP • PSCo – 1992 DSM Bidding Program; 1997 RFP • PG&E: 1995 RFP for Demand-side and Supply-side Resources • Texas Utilities – 1993 Energy Efficiency Pilot Program RFP • HL&P – 1994 RFP: A Solicitation for DSM Alternatives
"Business as Usual" Alternative	• Typically a "customized" or standard rebate program offered by utility EEA in large C/I markets (or a private power, supply-side project)
Policy Goals & Objectives	• Facilitate head-to-head comparisons of demand-side providers and technologies vs. private power producers in competing for long-term contracts to meet incremental resource needs • Test DSM Bidding or performance contracting as an alternative to existing utility DSM programs • Shift aspects of DSM implementation from utility EEA personnel to third party ESCOs • Identify "innovative" energy efficiency opportunities
Strengths	• Emphasis on verified energy savings that persist over multi-year period • Pay-for-performance features typically are effective in shifting project performance risk from ratepayers to ESCOs • Bidding may encourage innovation in energy efficiency services • Provides a means to "test the market" for availability of different services and financing options
Weaknesses	• "Winner take all" approach implied by selection of ESCOs & contractors that get to utilize incentives offered by EEA are viewed negatively by many providers as creating "uneven playing field" and not contributing to development of self-sustaining industry • For all-source RFPs, requirement to treat DSM as an interchangeable resource with supply-side often led to inappropriate program guidelines and contract terms (e.g., signed contracts/commitments with customers in advance, inability to modify projects as they developed, excessive M&V) and high bid prices for DSM resources • DSM Bidding is a time intensive and lengthy process and often perceived as too complex by customers and many types of energy efficiency providers • Winning DSM bidders may offer approaches that overlap or create confusion in marketplace if there are parallel energy efficiency programs offered by the EEA (e.g., administering rebates side-by-side with programs based on bid prices) • Inappropriate for some market and customer segments because of M&V issues (e.g., new construction baselines)
Summary of Experience to Date	• ~23-30 "All-Source, Integrated Bidding" or "DSM Bidding" solicitations issued by utilities between 1989-1998 which led to acquisition of ~530 MW of DSM – these programs were logical outgrowths of the Integrated Resource Planning processes mandated by PUCs for vertically-integrated utilities with obligations to serve. • Based on experiences, many utilities concluded that it was sub-optimal to procure supply and demand resources as part of an "integrated, all-source RFP" • Poorly designed integrated bidding programs resulted in high prices for DSM

	resources • Over time, utilities mandated by PUCs or choosing to procure DSM resources through competitive processes generally gravitated towards broad-based or target DSM-only procurements • "Broad-based" DSM bidding programs were most successful in markets where utility EEA didn't offer other DSM programs (e.g., Public Service of Colorado) or among utilities that conducted "partnership" bidding programs where utilities consciously tried to develop a cooperative relationship with winning ESCOs, often participating in lead generation and co-marketing (e.g., PG&E, SCE) • Level of DSM bidding activity in energy efficiency markets can be summarized as follows: institutional market (over-represented), large industrials (under-represented), residential and small commercial (under-represented unless specifically targeted in RFP); new construction (rarely if ever addressed) • Levelized total resource costs ranged between 5.0 - 8.4 cents/kWh for 18 DSM bidding programs (using an 11% discount rate with an average contract term of ~12 years).[13] • In early DSM bidding programs, payments to bidders (i.e., ESCOs) typically accounted for between 70-90% of total program costs. Over time, there appears to be a noticeable shift towards reduced payments to bidders and a corresponding increase in contributions from customers • The median value for program administration costs in these 18 programs was about 0.6 cents/kWh (about 10% of total program costs) • Overall, there is little evidence that DSM bidding programs were less expensive than alternative "traditional" programs offered by utilities (e.g., customized rebate programs) – either in terms of total resource costs or administrative costs.

Option 6b - Third Parties Selected through a "Targeted" Solicitation to Design, Develop, and Deliver EE Projects (DSM Bidding)

In this option, third parties, typically ESCOs or contractors, offer to develop projects at customer facilities that deliver savings from installation of high-efficiency equipment in response to a "targeted" solicitation issued by the EEA.[14] The "targeted" solicitation approach to DSM bidding is designed to minimize overlap with existing energy efficient program or to utilize ESCOs in markets where the EEA's existing programs are not achieving their goals. See Option 6a for discussion of the roles and responsibilities of third party ESCOs and the EEA in DSM bidding programs. Examples include: Southern California Edison (SCE), Wisconsin Electric Power Company, Pacific Gas & Electric (PG&E), San Diego Gas & Electric (SDG&E), and Connecticut Light & Power's RFP Pilot Program.

[13] Regional Economic Research 1998; Goldman and Kito 1994.

[14] In the context of this option, a "targeted" solicitation means that the EEA has specified eligible target market sectors or customer classes (e.g., large offices or small commercial) for the DSM bid program.

Table 11: Summary of Option 6b.

Examples	• SCE – 1992 RFP: Demand-side Energy Efficiency Resources for Industrial and Large Commercial Sectors & Small Office Buildings • Wisconsin Electric - 1997-98 Residential and Small Commercial Customer DSM Bidding Program • PG&E – 1992 PowerSaving Partners: Request for DSM Proposals • SDG&E – 1993 RFP: Energy Efficiency and Customer Service Program for Existing Residential Customers • Public Service of Colorado – 1997 RFP: "Bid 2000: Request for Proposal" • SoCal Gas – 1993 RFP: DSM Bidding for Residential Customers • CL&P – 2000 RFP Pilot Program
"Business as Usual" Alternative	• Typically a "customized" or standard rebate program offered by utility EEA[15]
Policy Goals & Objectives	• Enhance and complement existing DSM program offerings • Utilize ESCOs to develop projects in markets that are not being well-served by existing programs • Facilitate the development of a private-sector ESCO industry
Strengths	• See Option #6 plus: • "Targeted" bidding programs generally had fewer problems in terms of overlap with existing utility programs;
Weaknesses	• "Winner take all" approach implied by selection of ESCOs/contractors in designated market (e.g., small commercial) that can utilize incentives offered by EEA are viewed negatively by many providers as creating "uneven playing field" and not contributing to development of self-sustaining industry • Some "targeted" DSM Bidding programs focused on smaller customer markets (small C/I and residential) and they generally achieved mixed results; programs were often perceived as too complex by many types of energy efficiency providers serving smaller customer markets except for few ESCOs
Summary of Experience to Date	• ~7-12 "targeted" DSM Bidding solicitations issued by utilities between 1988-1998 which led to acquisition of ~100 MW of DSM • "Targeted" DSM bidding programs were most successful among utilities that conducted "partnership" bidding programs where utilities consciously tried to develop a cooperative relationship with winning ESCOs, often participating in lead generation and co-marketing (e.g., PG&E, SCE) • Total resource costs for "targeted" DSM bidding programs that focused on smaller customers tended to be at the high end for bidding programs (~8 cents/kWh). • Well-designed "targeted" DSM bidding programs that focused on large C/I or institutional customers had levelized utility payments to winning ESCOs in the 2-3 cent/kWh range with ESCOs obtaining a substantial cost contribution from participating customers.[16] • Little evidence of "market transformation" effects from DSM bidding programs, particularly in smaller customer markets (i.e., once ESCO/contractor had

[15] In a customized rebate program, EEA offers a one-time, fixed rebate payment which is often capped at a percentage of project costs or a cents/kWh limit. Customers typically apply through an EEA field rep and are encouraged to develop site-specific retrofit applications that are not easily covered by rebates for individual projects.

[16] Utility payments are levelized over the contract term, which tends to be somewhat shorter than the economic lifetime of the measures.

	completed projects to fulfill its contract quantity, they generally were unable to develop a self-sustaining business in these markets) • CL&P's RFP program is a hybrid approach and includes many program design features found in "targeted" DSM Bidding programs: "targeted" market identified in solicitation (customers >350 kW, multi-attribute scoring system where bidders offer incentive needed for project, and standardized contract. CL&P RFP program has budget of ~$4.5M and has conducted 2 rounds of solicitations. Market response was good (33 proposals in round 1 and 14 proposals in round 2); and contracts were signed with 14 projects in round 1, of which 12 projects were proposed by third parties and two by customers. Lighting measures account for ~70-75% of the savings and the program has been successful in providing information on incentives necessary to "make projects happen". In aggregate, financial incentives paid by CL&P account for about ~38% of estimated project costs, which means that customers are providing significant cost contribution.

Option 6c - Third Parties participate in a Standard Performance Contract Program to Design, Develop, and Deliver EE Projects (SPC or Standard Offer)

In this option, third party ESCOs or contractors propose projects to the EEA in a Standard Performance Contract (SPC) or Standard Offer (SO) program. In an SPC (or SO) program, the EEA posts a price per unit saved (e.g., kWh, therms) and there are standard program rules, contract, and measurement and verification protocols.[17] Some SPC programs allow both ESCOs/contractors and customers to participate as project sponsors (e.g., CA, NJ), while others are limited only to third party providers (NY, WI). Project sponsors that can meet the eligibility guidelines apply for incentive payments for projects under development on a first-come, first-served basis. If funds are available, they can enter into a standard contract with the EEA and then develop the project at the customer's facilities. They are typically paid for delivered savings over the contract term based on the verified savings. The EEA is responsible for program administration, management, quality assurance (e.g., verifying baseline conditions, claimed savings from projects), and financial payments to third parties.

Table 12: Summary of Option 6c.

Examples	• PSE&G Standard Offer Program ($230M) • CA Large Non-Residential SPC Program (~$175M Budget:1998-2000) • CA Small Business SPC Program (~25M Budget: 1999-2000) • NY SPC Program (~$48 M Budget: 1998-2000) • Wisconsin Energy Efficiency Performance Program ($5.3M)
"Business as Usual" Alternative	• Continue "traditional" programs offered by utility EEA in relevant markets
Policy Goals & Objectives	• To create a lower cost "energy efficiency power plant" to avoid the future construction of additional generation using a standardized program design that reduced transaction costs for the utility and potential participants (PSE&G) • Expand the role of energy service companies in delivering energy efficient products and services directly to end use customers and help build a sustainable

[17] In California and New York, project sponsors receive posted prices for annual energy savings achieved in the areas of HVAC & refrigeration, lighting, and motors and other end uses.

	energy services industry (NY, CA) • Comprehensive installations at customer facilities by differentiating pricing/incentive levels (NY, CA) • Contributes to creation of a self-sustaining market for energy efficiency products and services that captures all or a portion of the cost-effective opportunities in end user facilities (CA) • Important contributor to overall cost-effectiveness of the EEA portfolio of programs (CA) • Privatizing the provision of performance-based energy efficiency products & services and increasing demand for these services (WI)
Strengths	• Greater reliance on energy efficiency service providers to market & develop projects as opposed to EEA • Posted price, standard contract & program rules are more compatible with way that ESCOs like to do business and develop projects compared to most DSM bidding programs • SPC program is well-suited to discretionary retrofits and planned equipment replacements in large C/I markets • Increased confidence in claimed savings from installed measures due to post-installation M&V activities • Standard program guidelines, contract, & M&V protocols limit discretion & role of Program Administrator; these program features can potentially reduce regulatory oversight burden in context of competitive electricity industry and/or if utility ESCO affiliates are allowed to participate (compared to DSM bidding program)
Weaknesses	• Difficult to determine if incentive levels are optimal or appropriate when set through an administrative planning process that often involves significant "lobbying" by contractors/ESCOs that have a self-interest in receiving high incentive levels • "One size fits all" approach of SPC-type programs is not the best approach to overcome customer market barriers in certain market segments or capture certain types of EE opportunities due to program rules and complexity (e.g., emergency equipment replacement or renovations/building rehabs on tight schedules) • Barriers to participation include complexity and cost of M&V protocols, time lags associated with performance contracting provisions, and lack of customer awareness (CA, NY) • Performance contracting provisions in contract between EEA and project sponsor lead to extended sales process
Summary of Experience to Date	• An independent evaluation of the Public Service Electric & Gas Standard Offer (SO) program concluded that: (1) Standard Offer #1 acquired ~200 MW of savings primarily in large C/I retrofit markets, involving mainly lighting (60%) and fuel switching (27%), (2) SO#1 program was far less successful in capturing non-lighting measures such as HVAC & motors, (3) the range of programs offered by PSE&G should be expanded beyond just the performance contracting requirements of a SO design and should include "Market transformation" efforts, and programs targeting "lost opportunities" at time of equipment replacement, (4) the SO program should be targeted at market segments for which it is best suited and coordinated with other programs that are better able to respond to certain other market and customer barriers to increased energy efficiency, (5) less costly M&V should be adopted in order to lower transaction costs for participants (rather than continuous monitoring efforts over a 10-15 year contract term).[18] • PSE&G SO program achieved significant resource savings (~200 MW), although incentives provided by utility were very high (6-7 cents/kWh levelized). • In California's large non-residential SPC program in 1998, program incentive

[18] WECC 1998.

	funds ($33.8M) were fully subscribed, an indicator of the strong demand for the program. A significant amount of the savings were derived from non-lighting measures; however, an initial program evaluation estimated a net-to-gross ratio of about 0.53 for the 1998 program. Drop-out rates among project sponsors have been higher than anticipated: nearly 40% of the funding commitments have fallen through (i.e., proposed energy savings measures never installed as sponsors dropped out). In 1999, program funds were significantly under-subscribed on a statewide basis for the large C/I market (i.e., ~65% or $35M out of $55M) although results varied significantly among the three utilities (e.g., SCE committed 98% of funds, while PG&E committed only 27% of funds). With respect to the program's market transformation goals, an independent evaluation of the 1998 program concluded that: (1) the overall weight of the evidence suggested that the program was generating few near-term market effects, although insufficient time had elapsed to make a definitive interpretation for many of the indicators, (2) the program may have contributed to a minimal increase in performance contracting in California (about 40-45 GWh of net performance contracting business relative to a rough estimate of the market prior to the program, and (3) 49 unique energy efficiency service providers (EESPs) participated in the program in 1998 and 1999, although ESCOs indicated that the program is too small relative to the size of the California market to have a major impact. • The California Small Business SPC program committed only about 20% of the available funds in 1999 ($2.1M out of $10.6M). There were 37 energy efficiency service providers (EESPs) that participated in 1999; activity levels in the small C/I market are still quite low compared to the size of the market. • An independent evaluation of the NY Energy Smart SPC program concluded that: (1) Program had initial 3 year budget of $48 M, (2) Activity levels were much lower than anticipated during first 6-12 months ($1.8 M) at which point NYSERDA made significant program modifications (e.g., increased incentive levels, simplified M&V, reduced application fee), (3) Significant increase in participation during 2nd year & program was fully subscribed: 39 participating ESCOs/contractors, $29 M in incentives committed for ~100 projects which is expected to leverage ~$72 M in anticipated co-funding by customers, (4) Participating ESCOs and customers gave program high marks for overall satisfaction, quality of service and program effectiveness, (5) limited marketing by NYSERDA was a weakness initially.[19] • The Wisconsin Energy Efficiency Performance (EEP) Program is designed to encourage both national and local energy efficiency service providers (EESP) to expand their service offerings and market share by pursuing performance-based relationships with new & existing C/I customers. EESPs must submit a business plan that indicates market potential and long-term viability and profit potential of proposed service offerings. EESPs are required to enter into performance-based contracts with customers, and the program shares the performance risk. As of August 2000, the EEP program has signed or is in process of signing contracts with 12 EESPs who will develop 60+ projects. Because of the nature of service territory for the pilot (northeastern Wisconsin), the C/I market is relatively small (at least for a national ESCO) and the program has focused on interesting local contractors in expanding their services.[20] • Nearly all recent SPC-type programs report lower participation levels by ESCOs and other providers than anticipated (initially in case of New York and in second year in California). • Second generation SPC programs (NY, CA) have been more successful in

[19] NYSERDA 2000.
[20] Schiller et al 2000.

	obtaining significant cost contributions from customers compared to PSE&G SO program • Role of performance contracting in the ESCO market is evolving and its role is reduced (compared to earlier periods) as it is just one of mechanisms used by ESCOs to deliver energy efficient products and services to customers • Size of program vs. ESCO's analysis of size of market and extent of competition are key issues with respect to stimulating entry: small pilot program ($3-5M per year) is relatively unlikely to stimulate entry by "national" ESCOs or retail energy service companies into a new market • Size of program vs. ESCO industry capabilities are key issues with respect to program "subscription": a very large program (~$60-70 M per year) even in large market (e.g., CA) may not be fully subscribed if there are a limited number of ESCOs and many companies are "booked up" with previous work commitments and their capability to expand their business is constrained (e.g., ability to attract trained staff, working capital, managing growth efficiently)

Option 7a - Third Parties are selected through a Competitive Procurement Process to provide Program Implementation Services

In this option, third parties provide various types of program implementation services and are selected through a competitive solicitation process. The EEA is typically responsible for program administration, management, design, and quality assurance, while the TP provider focuses on well-specified implementation services. This approach to using third parties has become common practice among most utilities that administer energy efficiency programs. Types of implementation services that are typically contracted out vary by program: technical audits, design assistance, and equipment installation services are typically procured using this approach. For example, in many residential weatherization programs, EEA will contract out with contractors and consultants for energy audits, implementation of specific measures, etc. In residential appliance programs, EEA often contract out processing of appliance rebate applications and "circuit riders" that provide marketing materials and information to participating retailers. In low-income weatherization programs, an EEA will often select and contract with contractors and/or community action agencies to provide program outreach, education, lead generation, eligibility processing, audit and installation of eligible measures. In small commercial direct install programs, the EEA will often contract with a set of contractors that provide "turnkey" audit, design, construction management and installation services for eligible measures. In institutional markets, the EEA may contract out for technical audits, project management & design, construction management, and equipment installation.[21]

[21] Examples include the Southern California Edison Envest program and Southern California Gas Company TEEM program.

Table 13: Summary of Option 7a.

Examples	• Most EEA, with experience managing hundreds of programs, involve third parties using competitive processes to procure implementation services
"Business as Usual" Alternative	• Competitive procurement of implementation services is widespread; alternative is to deliver program by relying solely on internal EEA staff
Policy Goals & Objectives	• Select qualified contractors and providers through a fair & open procurement process • Streamline and reduce program delivery costs by contracting out certain services to non-EEA providers • Ensure that an EEA does not monopolize provision of energy efficiency services
Strengths	• Well-tested mechanism to procure services for efficient implementation of programs • Utility procurement processes are typically more flexible than state or local governmental procurement processes, which makes it easier to do "best value" purchasing, competitive negotiations, etc.
Weaknesses	• In some jurisdictions, because of prudence type reviews and/or internal company policies, utilities tend to rely too heavily on competitive solicitation processes that unduly emphasize "low bid price" rather than best value in order to assure cost-recovery and to protect themselves from accusations of favoritism.
Summary of Experience to Date	• Use of competitive processes to procure well-specified program implementation services is widely used by most EEA and has been quite successful • Types of implementation services that are procured tend to vary by type of program & market.

Option 7b- Third Parties are selected through a Partnership Arrangement to provide Program Implementation Services

In this option, third parties provide various types of program implementation services and are selected through a partnership type arrangement. The EEA is typically responsible for program administration, management, design, and quality assurance, while the TP provider focuses on well-specified implementation services. Partnership type arrangements with third parties to deliver program implementation services are less common than competitive procurement of such services. Services where partnership arangements are most common include training, education/information, certification of contractors, and bulk procurement. In some cases, where regulatory oversight is very "hands off" and/or EEA procurement policies do not prohibit such activities, EEA have a tendency to renew contracts with well-established providers for relatively long time periods without re-opening the implementation services to a competitive bidding process.

Table 14: Summary of Option 7b.

Examples	• Some EEA involve third parties using partnership arrangements
"Business as Usual" Alternative	• Alternative is to deliver program by relying solely on internal EEA staff or procure implementation services through competitive process
Policy Goals & Objectives	• Streamline and reduce program delivery costs by contracting out certain services to non-EEA providers • Ensure that an EEA does not monopolize provision of energy efficiency services
Strengths	• Can be more effective way to provide certain implementation services where

	competitive procurement processes are inappropriate • Contracts can be negotiated and signed quickly; probably faster than option #7a
Weaknesses	• EEA may have to defend sole source selection process and potentially opens themselves up to criticism and charges of favoritism
Summary of Experience to Date	• Use of partnership type for program implementation services has been used by many EEA; has been quite successful for certain types of services and situations

5. Quantitative Indicators

Table 15 provides several quantitative indicators that highlight results from other states that have utilized third parties in the management, administration, design, and/or implementation of energy efficiency programs. These indicators include: (1) the magnitude of experience with each option - number of programs or entities, estimated program expenditures or budget in aggregate, (2) cost considerations - levelized total resource costs, administrative costs (% of total or costs per unit of electricity saved (if available), and customer cost contributions (% of program total or costs per unit of electricity saved (if available), and (3) impacts – resource savings (e.g., savings in MW or GWh) or other market impacts (e.g., number of projects and/or facilities completed, number of participating ESCOs/contractors).

- It is difficult to compare quantitative indicators among the various options, with the possible exception of magnitude of experience. In some cases, appropriate data are not available because of limited experience or because of limited relevance. In other cases, there is substantial variation in certain indicators within an option (e.g., cost considerations) and median values should be regarded as rough estimates of a central tendency. Where feasible, disaggregated results for certain indicators are presented (e.g., levelized costs for DSM bidding and SPC programs, or resource savings).

- For options #1, 2, 3a, 3b, and 5, the number of entities/programs pursuing these approaches are rough proxies for the magnitude of experience that exists in other states. Options #1, 2, and 3 are relatively recent phenomenon with more limited experience that are by-products of industry restructuring and involve decisions by some states to move away from utility administration or limit utility management of energy efficiency programs. For options 6a, 6b, and 6c & 7, it is also important to focus on program expenditures as well as number of programs because some states have offered very large programs that involve significant participation by third parties (e.g., both SPC and DSM bidding type programs).

- Cost considerations are and should be a primary concern in assessing optimal ways to utilize third parties in energy efficiency programs. This issue has been particularly controversial in the context of assessing results from options #6a, 6b, and 6c – DSM bidding and Standard Performance Contracting (SPC) programs. In reviewing levelized total resource costs for particular options, it is critical to remember that (a) most DSM bidding and SPC programs had to be cost-effective compared to a utility's estimated avoided costs, which vary greatly by utility and have changed significantly over time (e.g., generally lower in recent years compared to the early 1990s), and (b)

that many early DSM bidding and Standard Offer programs were consciously designed so that total program costs could be slightly lower than supply-side alternatives (rather than other types of DSM programs). Thus, more recent SPC and DSM bidding programs provide a better indication of both total resource costs and customer cost contributions. In well-designed SPC and DSM bidding programs, financial incentives available to project sponsors are in the range of $0.01-0.025/kWh levelized over the lifetime of the measures. Estimates of program administration costs vary significantly among different DSM bidding and SPC programs. As a fraction of total program budget, administrative costs range from 5 – 25%. Some of these cost differences are related to differences in program design (% of costs that are born by project sponsors), program size (smaller programs tend to expend a higher share of program costs on administration, given fixed costs), regulatory constraints (e.g., limits imposed by PUCs on the administrator's costs to administer program), target market (e.g., administration & marketing costs tend to be higher in small C/I markets vs. large C/I) and lack of consistent accounting rules or definitions across programs. Administrative costs tend to be high in DSM bidding and SPC programs because of the performance-based nature of the programs which requires the EEA to administer and manage multi-year contracts with project sponsors and verify and process payments for savings over multi-year periods.

- For options where utilities are conducting either broad-based or targeted solicitations for third parties to manage, design, and deliver energy efficiency programs or program elements (options 3a, 3b, and 4a), administrative costs tend to be somewhat lower (~5-10%) than for DSM bidding or SPC programs (~5-25%). This should not be too surprising given that the EEA role is more limited in these types of third party initiatives and contracts are often for one or two year periods rather than multi-year period.

Table 15: Approaches to using Third Parties: Quantitative Indicators.

	Magnitude of Experience		Cost Considerations			Impacts
	(A)	(B)	(C)	(D)	(E)	(F)
Third Party Role	Number of Entities or Programs (Examples)	Program Expenditures Or Budget (Million $)	Levelized Costs: TRC ($/kWh)	Admin. Costs ($/kWh)	Customer Cost Contributions ($/kWh)	Resource Savings (MW or GWh)
#1 – Administer & Manage Portfolio of EE Programs (NEEA, NYSERDA, WI DOA)	3	NEEA - $65M (1997-1999);$100M (2000-2004) NYSERDA - ~162M (1998-2000) WI DOA – 16.75M (1998-2000)	NA	NA NYSERDA - capped at 5% of pgm budget	NA	NEEA - 400 avg. MW by 2010
#2 – Administer, Manage & Deliver Portfolio of EE Programs (Eff. Vermont)	1	~20-25M (2000-2002)	NA	NA	NA	EV - ~70,000 MWh (2000-2002)
#3a – Manage, Design & Deliver EE Program: Broad-based solicitation (3 CA Third Party Initiatives)	*3*	~17M in 3 CA Examples	NA	~5-10% of program budget	NA	NA
#3b – Manage, Design & Deliver EE Program: targeted solicitation (SoCal Gas & SDG&E)	*6-7*	~$6-8M (1999-2000)	NA	~5-10% of program budget	NA	NA
#4a – Manage & Deliver EE Program: competitive procurement process (CA Statewide Lighting & Appliance Program)	*1*	$25-35 M over 2 years	NA	~5 - 7.5% of program budget	NA	NA
#4b – Manage & Deliver	*5*	~2-3 M	NA	NA	NA	NP

element of EE Programs (partnership arrangement)						
#5 – Program Design – Coordination & Facilitation Services (NEEP)	1	~1.8 M$ per year	NP	NP	NP	NP
#6a – Develop, Design, & Deliver Projects: Broad-based Solicitation - DSM Bid (Many utilities)	23	~$374 - $963 M[1]	$0.063	$0.006 (9%)	$0.01	~530 MW
#6b – Develop, Design, and Deliver Projects: Targeted Solicitation – DSM Bid (Many utilities)	7	~$66M – $170M[1]	$0.063	0.6 (9%)		~95-100 MW
#6c – Develop, Design, & Deliver Projects: Standard Offer (NJ,CA,NY, WI)	3	NJ (~$230M – 1993-97) CA: (~$85-90M in 1998 & 1999 committed + admin); (~$200M - 1998-2000) NY: $31M committed through 2 years ($48M – 1998-2000) WI: $3.8M committed ($5.3M 1999-2000)	NJ: ~$0.06-0.07 in SO#1 & $0.045 in SO#2 (B/C ratio of 1.38 = ~$150M in net benefits) CA: NA NY: $0.037/kWh WI: NA	NJ:5% CA: 20-25% NY: ~11% of total budget WI: 20% (% of total budget)	NJ: ~$0.01 (10-15%) CA: (50-65%) NY: ~$0.026/kWh (~70%) WI: (>50%)	NJ: 200 MW & 1101 GWh/yr; ~860 projects at 5078 customer facilities; 160 project sponsors including 21 ESCOs) CA Large C/I: ~230 GWh/yr (1998); 200 customers; 49 EESPs CA Small C/I: 133 customers; 37 EESPs NY: 40-50 MW of peak demand savings; ~179 GWh/yr (1998-99); 2909 GWh lifetime savings; 106 projects; 300 customers; 40 ESCOs WI: ~10-32 GWh (1999-2000); 60+

						projects; 50+ customers; 12 EESPs
#7a – Program Implementation Services (competitive procurement process)	>100	Many states	?	?	?	
#7b – Program Implementation Services (partnership arrangement	>15-20	Many states	?	?	?	
#8a – Program Evaluation Services (competitive procurement process)		WI (~1M)	NP	NP	NP	NP
#8b – Program Evaluation Services (assigned to independent agency or TP)		VT (<500K)	NP	NP	NP	NP

NOTES:

(A) Number of Entities or Programs - Estimated number of entities or programs that have been tried in other states in last 10 years; selected number of examples is indicated by *italics*

(B) Program Expenditures or Budget – Estimates of total expenditures on option; if expenditures not available, then projected program budget shown in *italics*

1) Range in estimated Program Expenditures for all DSM bidding programs calculated based on program costs of $700-1800/kW, which includes Incentives & Admin. Costs and is based on analysis of average bid prices in several DSM bidding programs.

[C) Levelized Total Resource Costs refers to costs per unit of electricity saved. -- Ideally, TRC would be defined as utility program administration costs plus net participant costs divided by electricity savings levelized over the economic lifetime of measures. However, because of data limitations and regulatory requirements, in DSM bidding and SPC programs, levelized TRC is defined as bid payments to project sponsors (e.g., incentive), reported customer cost contributions, and program administration costs which are levelized over contract term.

NA = Information not available

NP = Information not applicable

Sources:

#1: NWEEA Alliance Annual Report; WI DOA

#2: Efficiency Vermont, contract with Vermont PSB

#3: Interviews with CA Utility Program Managers

#6a: Goldman & Kito, *DSM Bidding;* RER, *Review of DSM Bidding in U.S.*, 1998

#6b: Goldman & Kito, *DSM Bidding*; RER, *Review of DSM Bidding in U.S.*, 1998

#6c Goldman, *Evaluation of PSE&G Program*; Goldman et al, *Evaluation of CA Non-Res. SPC Program, 1998*; Xenergy, Evaluation of CA Non-res. SPC Program; NYSERDA, Evaluation of NY Smart Programs

6. Implications for Connecticut

This section draws upon our assessment of the role of third parties in ratepayer-funded energy efficiency programs in other states in order to offer some observations on potential options to expand the use of third parties in Connecticut's energy efficiency programs. Table 16 provides examples of the ways in which CL&P currently utilizes third parties in its existing energy efficiency programs.

Table 16: Examples of Third Party Approaches

Approach: Role of Third Party	Existing CL&P Programs
#5 – TP provide Program Design – Coordination & Facilitation Services	- High-efficiency Res. Lighting - Premium Efficiency Motors Initiative - Energy Star Appliances - Design Lights Consortium - Resource-Efficient Building Operations & Maintenance Initiative
#6b – TP selected through "targeted" DSM bidding solicitation to Develop, Design, Deliver, and Deliver Projects	- CL&P RFP Program
#7a – TP selected through Competitive solicitation process to provide Program Implementation Services	- C/I Small Customer Program – turnkey services provided by contractors - Spectrum program – contractors - Residential audits - State Buildings program (contractors provide QA reviews) - Special Needs Program (contractors conduct evaluations and perform inspections; ESCOs implement projects)
#7b – TP selected through Partnership Arrangement for Program Implementation Services	- Energy Care Initiative & WRAP (CAA do outreach, client screening, conduct workshops) - Res. Energy Conservation Load Program (CHIF administers program)

It is important to note that decisions regarding the appropriate roles for third parties in energy efficiency programs are utility- and state specific and should consider the following factors:

- the state's overall policy goals for energy efficiency;
- objectives and targets for specific markets and programs;
- the capabilities and performance of existing utility administrators;
- potential of disruptions in energy efficiency services market caused by change in EEA;
- perceived conflicts of interest or concerns regarding dominant market position of an Energy Efficiency Administrator;
- the capabilities, expertise, and mission of existing state agencies involved in energy efficiency activities;
- capabilities and expertise of private sector firms, non-profit organizations, and other entities; and
- the expected duration of public purpose funding.

Options 1 & 2: Third Party Administers, Manages (or Delivers) Portfolio of Energy Efficiency Programs

The decision to and process involved in transferring administration, management and/or delivery of the entire portfolio of EE programs to a third party entity (e.g., state agency, non-profit corporation, private firm) is very complex and time consuming (~2-4 years) and typically requires enabling legislation. Thus far, experiences in other states have been mixed.

- In the Pacific Northwest, the performance of the regional market transformation organization (NEEA) has by all accounts exceeded expectations of major stakeholders during the first three years of operation. Stakeholders in the Pacific Northwest were willing to expend the time and resources to create a new regional organization to administer and manage energy efficiency programs, in part because of the region's long-term commitment to energy efficiency.[22]
- In Vermont, Efficiency Vermont appears to have made a successful transition to a statewide EEA. The transition period took approximately four years from the original Department of Public Service "Power to Save" report to the transition to a statewide EEA. The process involved negotiations between major stakeholders that led to enabling legislation and PSB decisions, selection of a third party EEA through a competitive solicitation process, contract negotiation and signing with selected EEA, and assumption of program management responsibilities from the existing utility administrators. It is too early to judge the performance of Efficiency Vermont, the statewide EEA, in delivering programs. However, from the perspective of the regulatory agency that oversees the EEA (i.e., the Vermont Public Service Board), the shift to one statewide EEA rather than 21 utilities has already reduced its regulatory burden and increased its confidence that the state's energy efficiency policies will be carried out on a more consistent basis.[23] In both of these regions or states, there was a broadly shared consensus among major stakeholders (including utilities) in support of a shift to third party program administration & delivery.
- In contrast, California devoted significant resources and time (e.g., ~2 years) to such an effort. However, the effort to select Independent Administrators collapsed due to institutional limitations and lack of commitment at the regulatory agency, grievances and lawsuits brought by state employee unions concerned about work being performed by private sector firms, and the lack of political support at the state Executive Branch.
- In Wisconsin, in response to legislation, the Department of Administration is currently involved in a three year transition process to take over administration of energy efficiency programs on a statewide basis from electric utilities.

[22] The Northwest Power Planning Council Plan for the electricity sector proposes a 10-year time period for public purpose programs.

[23] Vermont hoped to capture economies of scale in program administration and delivery if existing programs administered by ~20 utilities in a small state were managed by a statewide entity.

- The situation in Connecticut with only two utility administrators is far different than Vermont or the Pacific Northwest where there were many utilities offering programs in local service territories. This suggests that the anticipated coordination benefits and administrative cost savings of moving from many local utilities to one statewide or regional EEA may not be a major consideration. In New York and Wisconsin, senior management at many of the utilities clearly signaled that they were no longer interested in administering energy efficiency programs after restructuring; this does not appear to be the case in Connecticut.

Options 4a/4b and 3a/3b: Third Parties Manage, Deliver, (and Design) Energy Efficiency Program

There are a number of recent examples from California and the Pacific Northwest in which EEA have utilized either broad-based or targeted solicitations to solicit innovative program concepts from third parties to manage, design, and deliver energy efficiency programs. We would highlight the following lessons from other states.

- These solicitations were conducted in an environment that is far different than Connecticut's current situation. For example, in the Pacific Northwest, when the Northwest Energy Efficiency Alliance (NEEA) issued its initial solicitations, there were relatively few utility programs that were still operating. Moreover, NEEA was soliciting program concepts in support of market transformation objectives, which represented a significant departure from existing programs. NEEA also had tremendous flexibility in procurement methods and a strong contract management organization (e.g., adequate and experienced staff to review proposals, work with proposers to improve their projects, and manage ~20-30 contracts). In 1998, utility EEA in California were directed by the CPUC to issue broad-based Third Party Initiative RFP. The utilities expected to be transitioning out of the role of program administrators and thus were consciously minimizing new program initiatives and were downsizing internal utility staff. Based on independent evaluations, the California Board for Energy Efficiency (CBEE) concluded that, given a relatively comprehensive set of programs offered by the EEA, targeted solicitations were a preferred approach in the future in order to minimize overlap and duplication with existing programs.

- Broad-based solicitations to manage, design, and deliver EE programs have been successful in other states with substantial gaps in program offerings in major markets, where policymakers are dissatisfied with the performance of existing EEA, or where policymakers conclude that an infusion of "new ideas" is needed in order to respond to significant changes in policy and program objectives (e.g., shift to market transformation focus, rather than near-term resource savings). Broad-based solicitations to manage, design, and deliver EE programs may not yield significant benefits for CL&P given the comprehensiveness and breadth of the existing portfolio of programs.

- "Targeted" solicitations to address gaps in program offerings have yielded some innovative new program concepts in other states and may be a preferable approach to consider in Connecticut. However the response to targeted solicitations by various private sector or public entities has not been overwhelming. For example, California utilities received only 2-3 bids in response to their statewide RFP for residential appliance and lighting program managers. SoCal Gas reports a relatively low response rate to many of their targeted RFP. In the Wisconsin Focus on Energy pilot, the Department of Administration (DOA) typically received 3-5 responses to its RFP for program managers in various market segments or functions; the same firms bid on many of the RFP. Thus, Connecticut policymakers should not automatically assume that there will be significant interest and/or response by third parties to these solicitations.

- There have been a number of successful examples of strategic partnership arrangements between an EEA and non-profit or public agencies or industry trade association that manage and deliver elements of energy efficiency programs (e.g. certification of contractors, education/training of energy professionals). This option should be explored in Connecticut where appropriate.

Option 5: Third Party provides program design, facilitation and coordination services

- Based on experiences in the New England and Mid-Atlantic regions, this option appears to provide a productive approach to improving regional coordination in certain energy efficiency service and product markets, while relying on the expertise and experience of existing EEA to actually manage programs.

- CL&P has already taken advantage of NEEP initiatives in many program areas: high-efficiency residential lighting, premium efficiency motors, Energy Star appliances, Design Lights Consortium, and building operations and maintenance initiatives.

Option 6a,b,c: Third parties develop, design and deliver projects either through a "broad-based" or targeted DSM bidding program or a Standard Performance Contract

- Broad-based DSM Bidding Programs were most successful during the mid-1990s in markets where utility EEA didn't offer other DSM programs or among EEA that promoted a "partnership" approach and cooperative relationship with winning ESCOs. Many less successful DSM bidding programs were part of "integrated, all-source" solicitations and featured complex bidding processes, lengthy contract negotiations over contract terms and conditions that were often not well-adapted to DSM market conditions, and high administrative costs.

- There is a trend among utility EEA that are still doing DSM bidding towards more "targeted" solicitations, which are focused on market segments where ESCOs are active or where there are gaps in existing programs. There is not much evidence to suggest that DSM bidding is less expensive than other DSM programs targeted to large C/I markets (e.g., custom or standard rebate programs) – either in terms of total

resource costs or administrative costs. However, well-designed DSM Bidding programs have been effective in shifting performance risk from ratepayers to ESCOs and/or participating customers.

- Standard Performance Contract (SPC) programs have been promoted by NAESCO as a way to overcome the limitations of DSM bidding programs, capture cost-effective energy savings, and promote the development of a vibrant ESCO industry during the transition to a more competitive electricity industry. Actual experiences with SPC programs highlight the strengths and weaknesses of this approach. In New Jersey, the PSE&G Standard Offer achieved significant resource savings (~230 MW), but financial incentives (and thus utility costs) were extremely high (~80-90% of project costs were paid through incentives). Second-generation SPC programs (NY, CA) have been more successful in obtaining significant cost contributions from customers. In California, experience with the SPC program has been mixed: the program has produced cost-effective projects and ~40 ESCOs have participated statewide. However, the program has been significantly under-subscribed in large C/I markets at PG&E and SDG&E, slow to take off in small C/I markets, and regarded as a failure in residential markets. Moreover, the number of projects that failed to develop (~40%) was much higher than expected in 1998. In New York, after a very slow start, the SPC program, with a budget of ~$31M, is fully committed at the end of the second year. About 40 energy efficiency service providers are participating and have submitted a diverse mix of projects in various market sectors. Program size ($15-20 million per year) seems to be about right for size of ESCO market in NY relative to California ($68-80 million per year) where ESCOs & contractors are unable to fully subscribe the program. Program Administrators (NYSERDA and CA utilities) have had to significantly increase their marketing & training in support of the program in order for it to take off.

- An SPC-type program may not make much sense in Connecticut if there are many competing programs in the target markets. If the program budget is small (~$4-6 million), then the program is unlikely to entice new firms to relocate into the market. Moreover, CL&P's RFP pilot program is quite innovative with respect to program design. The program incorporates many of the program design lessons gained from a decade of experience with DSM bidding programs: (1) a targeted solicitation designed to complement an existing portfolio of programs, (2) multi-attribute scoring system that rewards comprehensiveness, (3) cooperative relationship with selected ESCO and customer bidders, (4) periodic and predictable rounds of solicitations to "test the market" (which is well-aligned with how ESCOs do business and customer decision-making processes), and (5) a relatively short contract with reasonable terms & conditions. Based on reported participation rates in the pilot program, the RFP program appears to be an effective way to increase the involvement of third party ESCOs and other types of energy efficiency providers in CL&P programs.

Option 7a or 7b: Third Parties provide program implementation services through competitive processes or partnership arrangements

- Use of competitive processes to procure well-specified program implementation services is widely used by most EEA in many other states and has been quite successful. Types of implementation services that are procured tend to vary by type of program & market. CL&P already uses this option extensively in its existing programs and it appears to be working well.

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Appendix A: Historical Overview of Role of Third Parties in Ratepayer-funded Energy Efficiency Programs

Since the inception of energy efficiency programs, utilities have often grappled with the issue of the roles and functions that should be assumed by utility managers and staff vs. non-utility entities in the administration, management, design, delivery, and implementation of energy efficiency programs. This issue has been driven both by internal concerns raised by utility senior management as well as by forces external to the utilities (i.e., stakeholders involved in regulatory processes that establish policy/program goals and review and approve utility program budgets and plans). Utilities have always utilized third parties in delivering aspects of their energy efficiency programs; although, since the early 1990s, the scope of activities and management responsibility of third parties has expanded and a broader set of contracting/procurement mechanisms have been utilized.

"First Generation" Energy Efficiency Programs: 1970s and 1980s

During the 1980s, senior management at many utilities did not regard DSM as a core utility business and wanted to minimize staffing commitments required to manage and deliver DSM programs that had often been mandated by PUC. Initially, contractors and vendors were often wary and opposed perceived efforts by utilities to enter new business areas that had traditionally been performed by the private sector (e.g., furnace tune-ups, audits, weatherization of homes, installation of new windows). The compromise that was typically reached in first-generation residential programs was that utility staff would be responsible for overall administration, program management, program design, quality assurance and inspection of installations, program marketing, while contractors, audit consultants, and vendors would be utilized for aspects of program implementation. Early battles involved limits on the role of gas utility staff in delivering furnace tune-ups (e.g., Wisconsin, New Jersey), use of private sector auditors in the Residential Conservation Services audits, and the role of contractors in first-generation residential weatherization programs (e.g., California, the Pacific Northwest, Wisconsin, and TVA). Until the late 1980s, debates on the role of utility staff vs. third parties in the residential market were limited primarily to the program implementation area – to what extent should utility field staff actually provide energy efficiency services (e.g., perform technical audits, perform tune-ups and diagnostic work such as "house doctoring" as part of audits).

Rise of Integrated Resource Planning

During the late 1980s to early 1990s, Integrated Resource Planning rules were codified and adopted in most states and regulators took an increased interest in the extent to which utilities were effectively pursuing demand-side opportunities. Regulators also became increasingly interested in requiring or encouraging utilities to use competitive procurement processes to purchase non-utility generation because of problems and

limitations arising from administrative processes used to set and forecast avoided costs which were the basis for QF payments. Regulators were positively influenced by the relative success of supply-side bidding in reducing generation prices and decided to expand it to the demand-side, as one way of stimulating the development of an energy efficiency services industry and augmenting existing utility DSM program efforts. In many cases, regulators were disappointed that senior utility management did not embrace energy efficiency, or were dissatisfied with the level of investment or types of DSM programs proposed (e.g., load management or valley-filling rather than energy efficiency), and/or were concerned that there were few ways to assess and benchmark utility performance in the DSM area.

IRP and Competitive Procurement of DSM Resources

In order to increase utility management attention in this area, regulators increasingly began experimenting with both "carrots" in form of incentives for utility shareholders based on superior performance in delivering energy efficiency programs as well as various types of regulatory "sticks." In some cases, these "sticks" involved direction from regulators to develop programs that included an expanded role for private sector, energy efficiency service providers.

- For example, in Wisconsin, Madison Gas & Electric was ordered by the Wisconsin Public Service Commission to conduct an Energy Conservation Competition Pilot. In this pilot, the utility offered their own programs in three target markets (multifamily, small C/I, and large C/I) and competed against three firms, one in each sector, that offered their own conservation programs with comparable budgets and were selected through a competitive process (Vine et al 1990). In the MG&E pilot, third parties were responsible for program management, design, and implementation in direct competition to the utility, albeit only for a one year period.

- Between 1987 – 1997, ~30 utilities successfully conducted DSM bidding programs in which energy efficiency service providers (EESP) bid prices for blocks of energy and/or demand savings as part of a competitive resource solicitation (Goldman and Kito, 1995).[24] In bidding programs, utility EEA were responsible for overall program design and selection of bidders, program management, contract administration, and quality assurance activities related to measurement and verification of savings by winning bidders. Third parties, mainly energy service companies (ESCOs), were responsible for market assessment and characterization (as provided in their bid), program design in their target market, marketing, lead generation, project development and installation, and measurement and verification of savings in order to receive pay-for-performance payments. Comparing the role of third parties in DSM bidding vs. programs that utilities traditionally offered in large C/I retrofit markets (e.g., audit, standard or customized rebates), bidding programs involved an expanded

[24] We estimate that about $650- 1,000 million were paid by utility ratepayers in these DSM bidding programs, which resulted in about ~500-550 MW of peak demand reductions.

role for ESCOs in program design based on an assessment of market opportunities, program marketing, and measurement & verification of savings.

- Although there were generic similarities among DSM Bidding programs (e.g., ESCOs bid quantity of savings at specified price and were typically paid on a pay-for-performance basis), there were also some important differences among these programs on two key issues that should be highlighted: (1) the role of the utility program administrator in program marketing and project facilitation, and (2) "broad-based" solicitations indicating a willingness to consider savings proposals in all market sectors vs. solicitations that identified one or more target markets. First, there were significant differences among utility DSM bidding programs with respect to the utility's role in program marketing and project facilitation. For example, in California, PG&E's Power Partners program involved an explicit partnership between selected bidders (i.e., ESCOs) and PG&E and utility field staff promoted the program to customers and provided leads to ESCOs in the markets targeted by winning bidders.[25] PG&E viewed third party ESCOs as offering programs and services that augmented the utilities existing programs. In contrast, in New York, most of the utilities adopted a totally hands-off, relationship with selected bidders and limited their program marketing to informing customers that the program existed and that it was ratepayer-funded and approved by the PSC (Goldman et al 1994). Second, utilities took very different approaches on the issue of directing third parties to focus on specified target markets. Some utilities put out "broad-based" solicitations that put few limits on target market, size of customers, eligible technologies. Utilities that pursued this path either had large generation resource needs or few existing DSM programs and so were less concerned about overlap in program service offerings. Over time, particularly as utilities gained experience with DSM bidding, there was a definite trend towards more "targeted" solicitations, particularly by utilities that had relatively comprehensive program offerings and were looking primarily to target under-served markets or augment/supplement existing programs.

- In New Jersey, Public Service Electric & Gas developed its Standard offer program in the early 1990s which included a standardized contract and program rules. Qualified participants could apply on a first-come, first-served basis subject to a capacity block limit (e.g., 150 MW) and receive posted prices for delivered energy savings through agreed to M&V protocols over contract terms which varied between 5-15 years. The responsibilities of utility program administrators were similar in Standard Offer programs to DSM bidding programs, except that the utility did not have to select winning bidders. Roles of third party providers were similar to bidding programs, with the important difference that ESCOs did not have to prepare a market assessment or program plan as part of their proposal but instead market development occurred on a project-by-project basis.

Electricity Restructuring and Public Benefit Funds for Energy Efficiency

[25] PG&E staff were incented to promote the PowerSaving Partners program; and utility shareholders earned incentives based on the performance of ESCOs in actually delivering contracted savings.

With the advent of electricity restructuring and public purpose programs, the focus of energy efficiency programs has shifted in a number of states. The role of third parties in energy efficiency programs funded by public benefit funds has received increased attention from policymakers. In some states, legislators and regulators have modified the policy objectives for energy efficiency programs and, in some cases, mandated significant changes in existing institutional arrangements for governance and administration of these programs. Market transformation as both a energy efficiency policy goal and program design strategy has assumed increased prominence. In some states, this notion of market transformation has been tied explicitly to the promotion of a vibrant, competitive energy efficiency services industry and to increased emphasis on programs that facilitate customer interactions with private sector providers (e.g., California, Massachusetts). The following examples illustrate the changing and increased role for third parties in program administration, management, and program design.

- In several states (e.g., New York, Wisconsin, Vermont), there has been a conscious movement away from utility administration of energy efficiency programs. The boldest experiment is occurring in Vermont where the Public Service Board (PSB) has signed a three-year contract with a non-profit corporation to serve as the state's Energy Efficiency Utility (EEU) that was selected through a competitive procurement process. Working with the Vermont Department of Public Service and the PSB, the EEU is responsible for program management and delivery of seven core programs, program planning and budgets, and contract management and oversight of implementers. In New York and Wisconsin, state agencies now or will be administering energy efficiency programs funded by system benefit charges. In Wisconsin, the Department of Administration (DOA) has hired six program managers in targeted areas in its Focus on Energy pilot program in the Wisconsin Public Service Corporation service territory (e.g., residential, large C/I, marketing, evaluation) that are responsible for program design, delivery, and contract management. DOA is responsible for overall program administration, program planning and budgets, and contract administration with program managers. In New York, the New York State Energy Research Development Authority (NYSERDA) administers public purpose energy efficiency programs and is responsible for overall program administration, market assessment and characterization, program planning and budgets, contract administration, evaluation, and co-manages program design. NYSERDA contracts out program delivery and implementation services primarily using competitive solicitations and has hired contractors to manage certain programs.

- In the Pacific Northwest, the Northwest Energy Efficiency Alliance (NEEA), a non-profit corporation with ~15 professional staff and a Board of Directors, is responsible for developing, managing, and overseeing regional market transformation initiatives. NEEA has used a variety of contracting and procurement mechanisms ranging from broad-based competitive solicitations to formation of strategic partnerships with local, state and regional organizations to implement MT initiatives. A number of the

region's investor-owned utilities and public power agencies provide financial support to NEEA and sit on the Board of Directors.

- Many market transformation initiatives are either statewide or regional in nature, and thus, in many cases, it makes sense for utilities to coordinate and centralize program management and delivery on a broader geographic basis. These situations have provided additional opportunities for various types of third parties -- contractors, consultants, non-profit groups, or trade organizations -- to manage and design programs.

- Even in states where utilities still administer energy efficiency programs, third parties have assumed an expanded role. For example, in California, the state's investor-owned utilities, at the direction of the CPUC and California Board for Energy Efficiency (CBEE), have developed consistent and coordinated statewide programs in a number of key program areas. In a few selected areas, such as residential lighting and appliance programs, the utilities have "outsourced" program management and hired a team of contractors that are responsible for statewide program management, design, and implementation. Program managers at the three investor-owned utilities provide oversight and direction to the statewide lighting and appliance contract program administrator through their role as members of an Executive Steering Committee.